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ABSTRACT

In March 1992, Wisconsin Act 269 established an educational goals-setting process, funding for the development of a comprehensive student-assessment system, and an advisory committee to make recommendations. The committee established three learner goals to be the focus of the mandated statewide assessment. Students will build a substantial knowledge base, develop thinking and communication processes, and apply knowledge and processes. Seventeen more specific learner outcomes were also established to bridge the gap between educational goals, academic content, and student assessment. In March 1993, the State Educational Goals Committee established three categories of goals: learner, institutional support, and societal support. These goals were tied to assessment to improve student learning and were grounded on the belief that all students can learn. Indicators limited response performance, and portfolios provide the comprehensive information required to assess students' abilities. Some sample educational tasks that reflect the learner outcomes are included. A questions-and-answers section and the text of the Wisconsin learner, institutional support, and societal support goals are included. (JPT)

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Wisconsin Learner Goals, Outcomes, and Assessment

Educating students for success in the 21st century

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Wisconsin Learner Goals, Outcomes, and Assessment: Educating Students for Success in the 21st Century

Wisconsin Department of Public Instruction
Madison, Wisconsin

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John T. Benson
State Superintendent

Robert H. Gomoll
Deputy State Superintendent

February 1994

An Invitation from State Superintendent John T. Benson

I am pleased to present the 17 Wisconsin Learner Outcomes. The outcomes are the result of Wisconsin Act 269 of 1992, which required the development of statewide educational goals and student assessments. The outcomes serve as a bridge between the state's educational goals, academic content, and student assessment.

The Wisconsin Learner Outcomes have been developed by hundreds of Wisconsin citizens and educators who believe that our children must understand and be able to use the academic skills and knowledge taught in Wisconsin's public schools. The outcomes, as well as the educational goals and assessments, are grounded in the belief that all children, regardless of their abilities or backgrounds, can learn.

The Wisconsin Learner Outcomes, together with high academic standards, will help all children learn to use what they know to meet life's challenges. They will prepare our students with basic academic learning and help them understand how academic learning connects with life, work, and further study.

These learner outcomes will serve as the basis for student performance assessment, which will be part of the Wisconsin Student Assessment System. The first administration of these assessments will be in the fall of 1996. These performance assessments will complement multiple-choice and short-answer tests covering academic knowledge and concepts. We also anticipate that the annual Third Grade Reading Test will continue.

It is now time for communities to take these outcomes and make them work for their children. I encourage community members to work in partnership with their school districts to use these outcomes to enhance their children's academic learning.

During April, the Department of Public Instruction will hold open forums throughout the state to provide an opportunity for all community members to comment on and discuss the outcomes. Please feel free to circulate the enclosed material, and watch for additional information about the dates and locations of the regional forums. These forums are an opportunity to open the educational process and to create partnerships and consensus for the sake of our children.

John T. Benson
State Superintendent

Introduction

Background

During the fall of 1991, the state superintendent, the governor, and various educational groups demonstrated unprecedented collaboration by reaching consensus on a broad set of educational reform initiatives. With the deliberation and passage of Wisconsin Act 269 in March 1992, the legislature became a partner in these far-reaching reforms. These reforms included the establishment of an educational goals-setting process, funding for the development of a comprehensive student assessment system, and provision for an advisory committee to recommend the ways to connect the goals to the assessment system.

Act 269 provided for the broad-based development of statewide educational goals and the design of an assessment system that would measure key learner goals. The statutes purposely refrained from prescribing any requirements for the processes and procedures that schools and districts would employ in order to meet the goals. The state's role was to ensure that goals were established and, in the case of learner goals, to assess student performance related to the first three learner goals.

During the fall of 1992, a committee that included the governor, the state superintendent of public instruction, the president of the University of Wisconsin System, the director of the state Vocational, Technical and Adult Education System, and eight other citizens held public hearings at 13 locations throughout Wisconsin. As an outgrowth of those hearings, the committee formulated 28 educational goals. Ten of the goals focused on expectations for students and, in recognition that societal and institutional support are necessary for quality education, the remaining goals fell into these two categories.

The goals committee specifically stated that the first three learner goals should be the focus of the mandated statewide assessment.

Learner Goals for Assessment

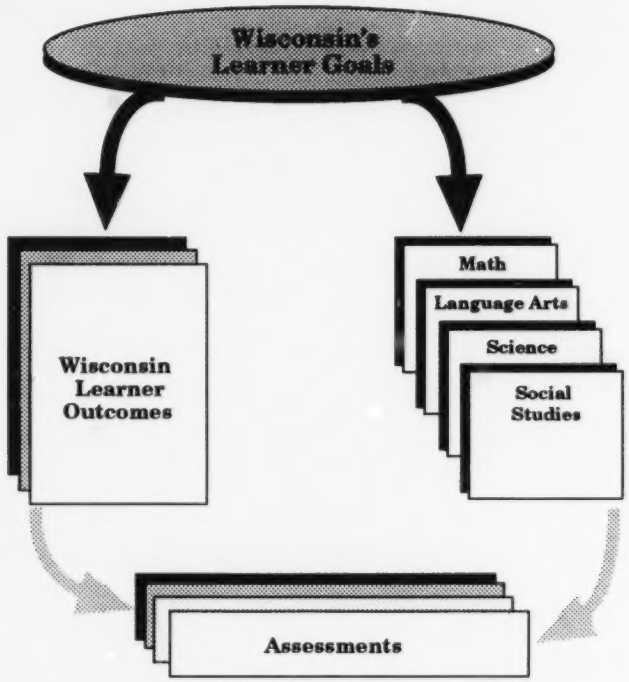
The learner will:

1. **Build a substantial knowledge base**. Students will build a solid knowledge base developed from challenging subject matter in computer/information technology, environmental education, fine and performing arts, foreign language, health, language arts, mathematics, physical education, reading, science, social studies, and vocational education.
2. **Develop thinking and communication processes.** Students will develop a command of thinking processes (analysis, creative thinking, problem solving, decision making, visualizing, concept development) that permit them to interpret and apply the knowledge base. Communication processes (listening, speaking, reading, writing, viewing, image making, and other symbolizing) enable them to communicate thoughts with others.
3. **Apply knowledge and processes.** Students will build upon knowledge and apply learning processes to create new ideas and understandings, enhance human relations, expand awareness, and enrich experiences.

While these learner goals constitute general high expectations for students, they are not specific enough to serve as the basis for either instructional planning or assessment development. For these purposes the Department of Public Instruction decided to develop more concrete outcome statements to serve as the basis for planning curriculum, instruction, and assessment. The first step in making the goals more specific was to develop outcome statements requiring application of academic knowledge and processes. The reason for beginning with outcomes was to clarify the third goal sufficiently to guide curriculum, instruction, and assessment. While it is equally important to have clear statements of knowledge, thinking, and communication processes, existing and emerging academic-content frameworks serve these purposes. Figure 1 shows the relationship between the learner goals, outcomes, academic content, and assessment.

Figure 1

Relationship of Learner Goals, Outcomes, Academic Content, and Assessments



These outcomes are referred to as the *Wisconsin Learner Outcomes*. It is the specific purpose of this publication to describe the outcomes, the process of their development, and their connections to instructional tasks and the assessment system recommended by the legislatively mandated assessment advisory committee. To understand the purpose of these outcome statements, it is critical that the overall context of goals, academic content, and assessments be kept in mind. It should be clear that the intent of these initiatives is twofold: (1) through the learner goals, outcomes, and academic content, to be clear about what is important for children to know and be able to do and (2) by implementation of the assessment system, to provide information about how well students are meeting these expectations.

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History of Wisconsin Learner Outcomes

In the early 1990s, failure of educational reforms to correct problems identified years earlier in *A Nation at Risk* led educators to switch their attention from inputs to outputs. Instead of adjusting hours of seat time, accumulation of required credits, class size, and per-student expenditure, they began to focus on improving and assessing what students knew and were able to do. Responding to demands of business, industry, and postsecondary education, they became concerned about whether students could apply what they had learned.

In 1992 the Wisconsin Department of Public Instruction (DPI) started examining lists of educational targets (commonly called "outcomes") to decide which targets should be measured by the assessments required by Wisconsin Act 269. Outcomes on existing lists seemed either too narrow to be meaningful or too broad-based to be assessable and were often isolated from any meaningful context. Most seemed fixed in specific academic-content areas, and few were expressed in ways that knowledge and skills could be meaningfully applied.

To address this situation, John Fortier and Jim Moser, consultants in the DPI's Bureau for Student Assessment, wrote *Targets and Tasks*, a paper examining the relationship of various educational targets to one another and to educational tasks. It also suggested how meaningful outcomes and tasks might be identified.

The Fortier/Moser framework has been applied in a variety of settings to develop the current list of Wisconsin Learner Outcomes. The chronology of that process is described below.

June 1992

The first application of the Fortier/Moser model took place during a week-long institute in Wausau with a group of educators from secondary schools in Wisconsin and the Wisconsin Vocational, Technical and Adult Education (VTAE) system. The focus of this work was on student preparation for associate degree programs in the VTAE system. Participants developed various outcome statements.

July 1992

Nearly 100 individuals representing the major educational interests in Wisconsin gathered to consider the outcomes framework. Given the opportunity to learn about the Fortier/Moser model and apply it to the development of outcomes, this group endorsed the approach for the creation of Wisconsin Learner Outcomes.

October 1992

Twenty secondary school teachers from various subject areas in the Menasha School District investigated the possibility that generic outcomes apply to the variety of subject areas taught in public schools. The teachers developed various outcome statements based on their work.

December 1992

The Department of Public Instruction assembled a cross-disciplinary group representing various academic-content areas, administrators, and persons in private employment. After developing a series of outcomes of their own, the participants reviewed the Wausau and Menasha outcomes, evaluated them, and reduced the total number of outcomes to 23.

December 1992

A group of second-grade teachers reviewed the 23 outcomes to see whether they could be used to develop tasks that would be developmentally appropriate for their students. The teachers found the outcomes very appropriate for K-12 application.

March 1993

A second statewide, cross-disciplinary group of educators and people representing a variety of organizations met. Guided by the state goals and the work of the previous groups, DPI replicated the process initiated in Menasha and refined in December. After developing outcomes, six groups reviewed the work along with the outcomes developed at earlier meetings. The result was a list of 21 outcome statements.

May-June 1993

Four groups of educators representing language arts, science, social studies, and mathematics tested whether the outcomes applied in a variety of subject areas. Overall, they reached consensus that, with slight changes, the listed outcomes were appropriate for each of the four academic subject areas.

August 1993

A team of individuals that had participated in the outcomes development process from its inception met to reconsider the list of 21 outcome statements. Using information from teachers in the subject-specific meetings, the team reduced the number of outcomes from 21 to 17.

Wisconsin Learner Outcomes

The Department of Public Instruction endorses the following learner outcomes, which were developed by hundreds of educators and other community members from throughout the state. In order for students to demonstrate the outcomes, they will need a solid foundation in the academic subjects of language arts, mathematics, science, and social studies. The outcomes serve as a bridge between Wisconsin's Educational Goals, academic content, and student assessment.

1. **Identify, develop, evaluate, and apply criteria to ideas, products, and performances of one's self or others.**

   This outcome requires students to be constructively critical of the work of other persons as well as that produced by one's self. A person should realize when such criticism is objective or subjective. Students should apply criteria developed by themselves as well as those developed by others.

2. **Revise a product, performance, system, and idea in response to relevant information.**

   Relevant information might include additional data, changes in a situation, or feedback from experts, peers, or family members. Although the revision may make the item different than it was before, the intent is that the change results in improvement. The expectation is that students will consider all information presented and use that which will result in improvement.

3. **Make informed decisions by examining options and anticipating consequences of actions.**

   Familiar sayings such as "look before you leap" and "think before you act" capture the essence of this outcome. Students should gather evidence and information relevant to some contemplated action, weigh the pros and cons of the potential results, and then choose the course of action.

4. **Achieve desired results by interpreting and executing instructions, plans, models, and diagrams.**

   This means that students can follow directions in a variety of forms: written, spoken, pictorial, or represented as mathematical symbols. Following directions includes sorting things out when they are not clear as well as evaluating the successful attainment of the desired result. The actual result should be consistent with the intent of the direction-giver.

5. **Recognize and devise systems and describe their interdependence.**

   A system is a set of elements that forms a unit or whole. Examples of systems include a musical composition, a game, a procedure designed to solve mathematics problems, weather, ecosystems, and monetary systems.

6. **Create a quality product, process, and performance to meet a need.**

   This outcome is a tangible or visible thing or event. It includes paintings, musical performances and compositions, athletic performances, poems or essays, novels, or public policy.

7. **Respond to the aesthetic and intellectual aspects of an event, performance, and product.**

   Although similar to outcome No. 6, this outcome focuses on a student's response to something someone else has done. Examples include an opinion, a critique, an essay, and a drawing.

8. Transfer learning from one context to another.	Students should identify similar characteristics of two or more situations, objects, or events. Often these characteristics are not apparent, so students need to be analytical. This outcome also involves finding a practical application for a theory and creating new uses for existing products and applications of ideas.
9. Recognize, define, and solve a problem.	This outcome focuses on situations that are problematic because the solution is not immediately obvious. The student needs to formulate the problem and eliminate irrelevant information. The effective problem solver uses a wide range of strategies and can often identify multiple solutions.
10. Recognize and communicate one's strategies for accomplishing objectives.	Students should reflect upon and explain their own thinking processes. Those approaches should be shared with others.
11. Work effectively in groups to accomplish a goal.	Throughout life—at school, within the family, at work—people must cooperate with others to effectively complete a task or project. This does not imply that working independently is not valued; independent working skills are also necessary.
12. Defend a position by combining information from multiple sources.	The position or point of view being defended could be one's own or that of another person or group. The position may be of a social, political, environmental, economic, or hypothetical nature. Students must gather information from a variety of sources and then blend that information with their own knowledge to create an argument in favor of a position.
13. Develop and test a hypothesis.	A hypothesis is a guess about a rule or relationship among a collection of events, objects, or ideas. Students should devise a plan to identify and collect data, then interpret and use those data to determine whether or not the guess is correct.
14. Recognize when a need for specific information exists and demonstrate the ability to locate, evaluate, and use the relevant information.	Students must be able to consult a recognized authority, to extract information from library sources, and to access electronic data bases. This outcome requires students to consider all information, eliminate that which is irrelevant, and then organize what is left into a usable form.
15. Conceive of places, times, and conditions different from one's own.	This outcome includes real as well as fictional places, times, and conditions. Students should think about life as it existed in the past as well as thinking about how it might be in the future.
16. Identify personal interests and goals and pursue them.	Students should work persistently over time on ideas, activities, projects, and goals that reflect their abilities, talents, and interests.
17. Recognize the influence of diverse cultural perspectives on human thought and behavior.	The term "culture" includes groups that share a common history or have a linguistic, racial, geographic, social, or occupational bond that may affect the way people act. Examples include the civilizations of ancient Greece; the Incan Empire; and Hispanic, African, or Asian cultures.

Wisconsin Student Assessment System

State Superintendent's Advisory Committee
Summary Recommendations

Background

The State Superintendent's Assessment Advisory Committee was appointed in the spring of 1993 to meet the state legislature's mandate to "...advise the State Superintendent on how to utilize school district and state educational goals in the development of a pupil assessment program." The committee developed specific recommendations about the design of a pupil assessment system linked with Wisconsin's Educational Goals.

Relationship of Goals to Assessments

In March 1993, the State Educational Goals Committee established three categories of goals: *learner*, *institutional support*, and *societal support* goals. The learner goals establish expectations for students. The committee recognized the importance of the context in which formal education takes place and identified the societal and institutional prerequisites for a quality learning environment. Thus, committee members established a set of societal and institutional goals to serve as the foundation for the systematic change in schools and society that is needed to increase student learning and achieve personal and community prosperity in the first half of the twenty-first century. The pyramid in Figure 2 represents the structural relationship of the societal, institutional, and learner goals.

Figure 2

While the goals committee members established ten learner goals, they specifically identified the first three of these to serve as the basis for statewide assessment. The assessment committee recommendations envision a system that will provide comprehensive information about student attainment of these three goals.

While the learner goals constitute general expectations for students, they are not specific enough to serve as the basis for assessment development. More concrete outcome statements and specific academic content are needed to guide the development of assessment tasks and examinations. Department of Public Instruction (DPI) staff members have completed the outcome statements and have established preliminary academic content. However, the content frameworks will likely undergo modifications as nationally developed standards for subjects become available.

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Learner Goals for Assessment

The learner will:

1. **Build a substantial knowledge base**. Students will build a solid knowledge base developed from challenging subject matter in computer/information technology, environmental education, fine and performing arts, foreign language, health, language arts, mathematics, physical education, reading, science, social studies, and vocational education.

2. **Develop thinking and communication processes.** Students will develop a command of thinking processes (analysis, creative thinking, problem solving, decision making, visualizing, concept development) that permit them to interpret and apply the knowledge base. Communication processes (listening, speaking, reading, writing, viewing, image making, and other symbolizing) enable them to communicate thoughts with others.

3. **Apply knowledge and processes.** Students will build upon knowledge and apply learning processes to create new ideas and understandings, enhance human relations, expand awareness, and enrich experiences.

Assessment

The focus of the assessment system must be on the improvement of student learning. It must also be grounded in the beliefs that all children can learn.

The end of the tenth grade marks a critical point in Wisconsin's conception of the transition from school to work. Up to tenth grade, all students should have pursued the demanding academic work necessary for success in the final, transitional years of their secondary schooling. These last two years will emphasize preparation for technical fields, college, or apprenticeship programs. Pupil assessment should provide information to assist in assuring that the first ten years of schooling prepare students for the challenges of their transitional years. Such information can be used in four ways: for evaluation of curriculum and instruction, demonstration of achievement, planning, and guidance.

First, the assessment information can be used to evaluate curriculum and instruction. Assessment results provide an opportunity to celebrate the successes of our schools and draw attention to effective programs. Assessment results also reveal areas that need improvement and provide direction for increasing program effectiveness.

Second, students' demonstration of meeting the first three learner goals at the end of tenth grade will serve as the bridge connecting them to success in their chosen pursuits in the eleventh and twelfth grades. Assessment information can measure the extent to which students have the knowledge and skills necessary for future success. After tenth grade, students may choose to emphasize technical preparation, apprenticeship activities, or preparation for college in the next phase of their education. The intent is for individuals pursuing one path to be able to enter a different path when they are motivated to do so. Choice would be based on interests and career plans, not on the level of skill attained.

Third, based on assessment results, educators can plan program improvements. The assessment methods can promote better instructional practices. Curriculum, instruction, and assessment should be closely linked so that assessment results will lead directly to interventions that result in program improvements.

Fourth, the assessment can be used as a guidance tool. In conjunction with information about interests, preferred skills, and other factors, students, staff members, and parents can assist students in planning their educational and career paths.

When completely implemented, the assessment system as envisioned by the committee includes three kinds of measures to assess student learning. Traditional examinations with multiple-choice and short-answer questions, termed "**limited-response testing**," will be used to measure students' understanding of important knowledge and concepts in mathematics, language arts, science, and social studies.

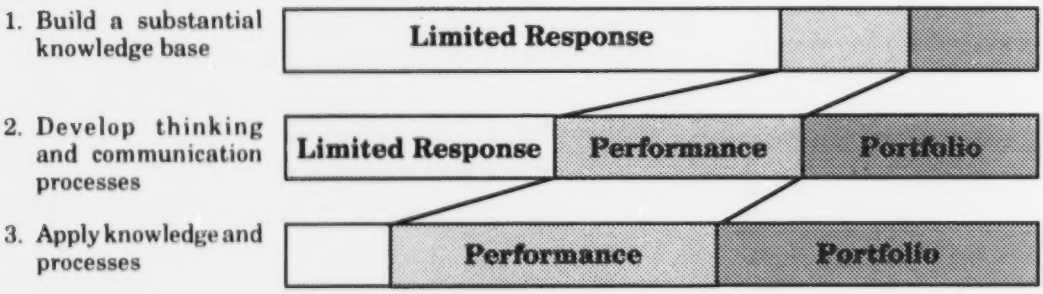
Because many of the critical outcomes of schooling reflect actual pupil performances, the DPI will develop new and innovative methods to assess this learning. Students at specific grade levels will be given **performance assessments**. **Student portfolios** will contain outcomes requiring projects of longer duration. Limited response and performance assessments will be given to all state students, but local school districts will develop and implement portfolio assessments that will be based on statewide guidelines. The annual Third Grade Reading Test will likely continue.

Staff development is a crucial component of the assessment system. Staff development on assessment literacy and on using performance and portfolio methods will provide support for the Wisconsin Student Assessment System, will lead to its institutionalization within schools, and will lead to appropriate uses of assessment results.

Figure 3 shows how the various types of indicators would be utilized to measure the three Wisconsin learner goals that are to be the focus of assessment. A student's knowledge base (goal 1) would be measured primarily by limited-response examinations. Thinking and communication processes (goal 2) would be tested by each of the methods. Application of knowledge and processes (goal 3) requires performance and portfolio methods.

Figure 3

Indicators of the Three Assessment Goals



The overall charge to the assessment committee was to make recommendations about linking state and district goals to assessments. Figure 4 (page 10) shows the relationship of the proposed assessment system to the state goals.

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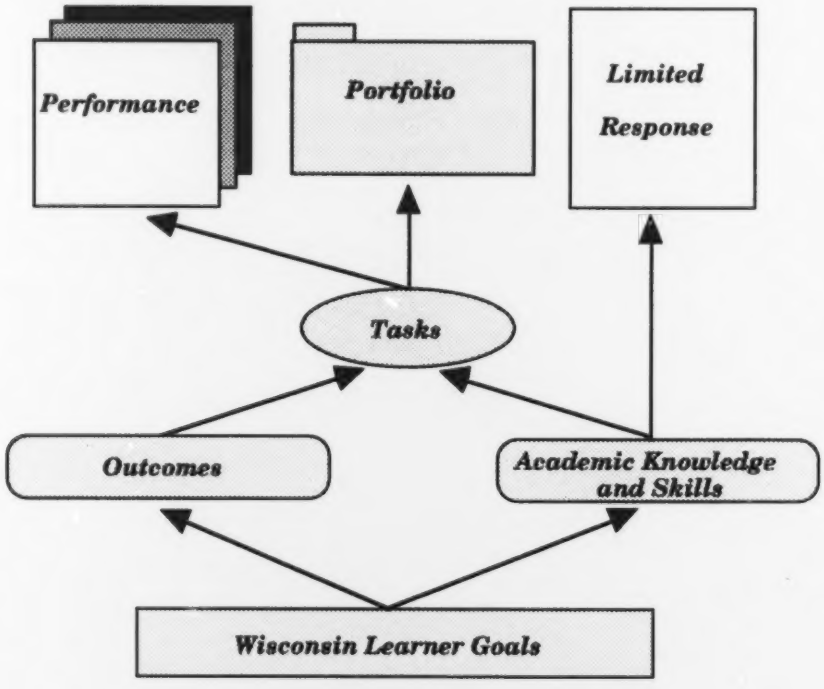
Figure 4

Linkage of Goals to Assessments



Together, the three types of indicators—*limited response*, *performance*, and *portfolio*—provide the comprehensive information required to assess students' capability to perform the critical outcomes of schooling. Each approach will contribute unique, essential information. It is only through such a comprehensive system that the range and richness of the totality of learning can be measured and evaluated.

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Sample Educational Tasks

The following educational tasks are examples of the great variety and number of tasks that reflect the Wisconsin Learner Outcomes. Tasks clarify how learner outcomes are related to academic content. Each outcome requires students to apply knowledge and processes in real-life contexts through the completion of tasks. Students must use what they learn. The academic knowledge and skills displayed in realistic tasks will demonstrate the students' ability to apply what they are learning.

Sample tasks include all grade levels from kindergarten through grade 12. Each of the sample tasks addresses at least one outcome as well as significant academic knowledge and skills.

The outcomes and tasks are related to the first three Wisconsin learner goals:

1. Build a substantial knowledge base,
2. Develop thinking and communication processes, and
3. Apply knowledge and processes.

The products, performances, and processes produced by students should be evaluated against high standards of academic achievement. Educators throughout the state are preparing examples of tasks at all grade levels and across subject areas; however, DPI will not develop mandated state curriculum. The intent is to encourage school districts to use the sample tasks as models. District staff members then may develop tasks that reflect meaningful application of the knowledge and skills students are taught in the local educational program.

Each sample task lists only one or two outcomes, but a task may address one or more additional outcomes. However, the focus is on those outcomes that are primary to each task. If too many are addressed in a given task, the necessary focus may be lost.

It is crucial that students meet high standards for achievement in academic subjects. While tasks should be interesting to students, it is essential that they demand application of rigorous academic content for that grade level. A task must not be an end in itself but must represent the clear application of academic knowledge to a real-life situation.

Appropriate tasks meet three criteria:

- The task requires knowledge of important academic content,
- Accomplishing the task achieves a useful, meaningful purpose, and
- The task has a clear application to a real-life situation.

Measurement

Learner Outcomes Addressed by Task

5. Recognize and devise systems and describe their interdependence.
10. Recognize and communicate one's strategies for accomplishing objectives.

Main Knowledge and Processes Required

Subject Base: mathematics

Understanding the difference between standard and nonstandard measurement units; using measurement; conceiving partial units; communicating mathematics information.

Sample Task *should require high levels of knowledge and a variety of thinking processes and communication skills.*

Students are shown a long object, possibly a length of rope or cable, a long scarf, or a roll of paper toweling. Then they are asked what objects in the room could be used as measurement units—things in terms of which the long object could be measured. They are encouraged to think of unusual possibilities. In groups they are asked to select a measurement unit and find how long the target object is in terms of those units. As a whole class they discuss their results. The teacher leads the discussion toward recognizing the need for units of equal length. For example, if students have chosen shoes as a measurement unit, what is the effect of having shoes of different length? Some students will have chosen a unit that will not allow for an exact number of units. This permits introduction of the concept of fractional units. Finally students are asked to individually write about their measurement results. They may illustrate their answers.

Estimated Time Required for Task

About an hour. The writing might be done on a second day.

Prepared by

Adapted from Stanford, S. "Assessing Measurement in the Primary Classroom." In *Assessment in the Mathematics Classroom.* Reston, VA: NCTM Yearbook, 1993.

Fish Tank

Learner Outcomes Addressed by Task

4. Achieve desired results by interpreting and executing instructions, plans, models, and diagrams.
5. Recognize and devise systems and describe their interdependence.

Main Knowledge and Processes Required

Subject Base: mathematics and science

Problem solving, reasoning, communicating, computing whole numbers, understanding fractions and decimals, measuring, and reading for a purpose.

Sample Task *should require high levels of knowledge and a variety of thinking processes and communication skills.*

The class will be getting a 30-gallon aquarium. The class will have $25 to spend on fish. The students will plan which fish to buy by using the "Choosing Fish for Your Aquarium" brochure to help them choose the fish. The brochure explains the size of the fish, how much they cost, and their needs.

Students choose as many different kinds of fish as they can, and then they write a letter to the principal explaining the fish chosen. In the letter, they

- tell the principal how many of each kind of fish to buy,
- give the reasons why the students chose those fish, and
- show that they are not overspending and that the fish will not be too crowded in the aquarium.

Materials Needed

A brochure that contains information on fish size, needs, cost, and habits.

Estimated Time Required for Task

One class period.

Prepared by

New Standards Project, 1991.

Calories

Learner Outcomes Addressed by Task

3. Make informed decisions by examining options and anticipating consequences of actions.
4. Achieve desired results by interpreting and executing instructions, plans, models, and diagrams.

Main Knowledge and Processes Required

Subject Base: health, mathematics

Understanding the food groups; calculating percentages; computing with whole numbers; reading charts, diagrams, and schedules; and reading for information.

Sample Task *should require high levels of knowledge and a variety of thinking processes and communication skills.*

Ideally a person's diet should get no more than 30 percent of its calories from fats, and it is important to eat balanced meals in which the various food groups are represented. Using the calorie and fat guides provided, students will plan a balanced diet for a single day for a person requiring about 2,000 calories per day. This diet should not have more than 30 percent of its calories from fats. Each student also could determine from charts the number of calories he or she requires per day. Then students could use their own number in completing this task.

Materials Needed

Calorie and fat charts, information on food groups.

Estimated Time Required for Task

One class period.

Prepared by

Health educators, 1993.

Locker Organizer

Learner Outcomes Addressed by Task

2. Revise a product, performance, system, and idea in response to relevant information.
11. Work effectively in groups to accomplish a goal.

Main Knowledge and Processes Required

Subject Base: technology education, art

Observing, analyzing, brainstorming, sketching, and selecting best design; constructing and evaluating prototype; calculating cost; surveying, compiling, and analyzing data, and producing a working drawing using computer technology.

Sample Task *should require high levels of knowledge and a variety of thinking processes and communication skills.*

The commercially produced and recently purchased locker organizers that the students are using fell apart. Divide the class into groups of five or fewer students. Discuss and analyze why the purchased locker organizer failed. Design and develop a plan to produce and market a more reliable locker organizer. After developing the model, construct and test a prototype to share with student council members, who have decided to raise money for a computer by selling locker organizers to students.

Estimated Time Required for Task

Three class periods.

Prepared by

CESA 7 technology education group, 1993.

Land Use

Learner Outcomes Addressed by Task

12. Defend a position by combining information from multiple sources.
15. Conceive of places, times, and conditions different from one's own.

Main Knowledge and Processes Required

Subject Base: social studies, agriculture, communications.

Assessing cause/effect relationships within the context of political, cultural, and economic systems; determining the validity of truth claims by evaluating evidence; considering supply/demand, cost-effectiveness, drainage concerns, environmental impact, impact on local tax base; and acquiring knowledge of graphics and forms.

Sample Task *should require high levels of knowledge and a variety of thinking processes and communication skills.*

Students choose an empty parcel of land close to the high school and with major development potential. In an assigned group, students design and develop a land-use plan that will improve the quality of life in their community. Students prepare an oral and graphic presentation for the city planner.

Estimated Time Required for Task

Five 50-minute class periods.

Prepared by

Social studies group, 1993.

Shower

Learner Outcomes Addressed by Task

10. Recognize and communicate one's strategies for accomplishing objectives.
14. Recognize when a need for specific information exists and demonstrate the ability to locate, evaluate, and use the relevant information.

Main Knowledge and Processes Required

Subject Base: mathematics

Using mathematics to solve problems, finding necessary information, measuring, and devising plans.

Sample Task *should require high levels of knowledge and a variety of thinking processes and communication skills.*

Students are asked how much they think it costs to take a shower. Included with their answer, students should include a written explanation of how they determined their results.

(This task is an example of an unstructured problem. Students will have to decide on such issues as length of shower time and rate of water flow. They will have to find out the city's water rate. They also will need to calculate other costs of showering, making decisions as they proceed.)

Estimated Time Required for Task

Actual work requires about one class period. Gathering necessary data may require out-of-class work.

Prepared by

Adapted from the Connecticut Assessment System.

Questions and Answers

1. What are the Wisconsin Learner Outcomes?

The Wisconsin Learner Outcomes are broad statements that identify what all Wisconsin students should know and be able to do as a result of their educational experience. They have been developed using the following definition.

> *Learner Outcomes* represent complex academic performance involving the integration of knowledge, concepts, and skills applied to the completion of real tasks.

2. Why are these outcomes needed?

These outcomes are needed because academic knowledge and skills are not useful in isolation, but only when applied to real-life situations. Wisconsin's Commission on Schools for the 21st Century realized this need to apply academics to real life and concluded that a statewide set of "essential learner outcomes" was necessary to meet the changing educational needs of our students.

Also, Wisconsin business and industry leaders have expressed a strong interest in having qualified entrants in the workforce. Their comments helped shape the statements about what students should know and be able to do.

These outcomes require students to take the crucial step beyond learning knowledge and skills to the applications of academics to real situations.

3. Why should parents be interested in the Wisconsin Learner Outcomes?

For parents, outcomes describe what is important for their children to be able to do. These statements clarify a critical purpose of school. Mathematics, reading, writing, science, and social studies are at the core of each child's education. However, the ability to apply this knowledge, as exemplified in the outcomes, is essential to economic and personal success in the future.

The outcome statements set clear expectations for students. When teachers and parents meet to discuss student progress, the outcomes will ensure clear understanding of the purposes of classroom activities. Research evidence suggests that this clear understanding of the purposes and goals of classroom activities is crucial to effective learning. Children learn best when teachers, parents, and students all have common ideas about the aims of lessons.

Another value of the outcomes for parents is that they provide the basis for a clearer understanding of assessments. Examinations based on the outcomes further clarify what students are expected to learn. Additionally, the results of the assessment provide feedback that helps parents to understand their children's strengths and weaknesses at a given point in time.

4. How will learner outcomes improve student learning?

The outcome statements will enhance learning in four ways. Effective schools research has demonstrated the importance of having clear, well-understood expectations for students. The outcomes will clarify the purposes of instruction to parents, teachers, and students alike; thus creating a more effective and efficient learning environment.

Another way in which the outcomes can help improve learning is by providing the means to *apply* academic knowledge. Recent research suggests that using and applying knowledge reinforces earlier learning and actually establishes new knowledge and conceptual understanding.

The evidence is that students become much more interested in school when they have a chance to apply knowledge to real-world situations. For example, experience with having students do scientific experiments as part of a test reveals that most students enjoy the activity and are highly motivated to do their best. Thus, teaching to the outcomes should raise motivations that will, in turn, increase learning.

The outcomes and clear expectations for students also provide guidance for assessment. The outcomes provide the basis for developing assessment tasks that do two things. They further clarify what students are expected to learn. In addition, the results of the assessment provide feedback to teachers, students, parents, administrators, and school board members who can then work on weaknesses and improve future programs.

5. Doesn't the state already have educational standards?

Yes, there are state standards that apply to school operations. These standards refer to inputs to the educational process, such as hours of schooling, providing specific programs, and ensuring safe buildings. As such, they are not comparable to outcomes, which refer to the kinds of things students should know and be able to do as a result of the educational process.

6. How were the Wisconsin Learner Outcomes developed?

Hundreds of citizens and educators from all levels and subject areas participated in developing outcomes, which were then reviewed and consolidated into the final 17 outcomes. See detailed history on pages 3 and 4.

7. How will the Wisconsin Learner Outcomes be used at the state level?

The Wisconsin Learner Outcomes will provide leadership and direction for districts as they improve their pre K-12 curriculum, instruction, and assessment programs. The Wisconsin Department of Public Instruction will be using the outcomes to develop the performance component of the Wisconsin Student Assessment System (WSAS).

8. How are the Wisconsin Learner Outcomes related to the educational goals that were developed by the Educational Goals Committee appointed by the governor and state superintendent and submitted to the legislature on September 1, 1993?

There are three kinds of state educational goals: learner, institutional support, and societal support. The Wisconsin Learner Outcomes and the tasks associated with them provide a means of evaluating student's progress toward meeting the first three learner

goals: 1) build a substantial knowledge base, 2) develop thinking and communication processes, 3) apply knowledge and processes.

The Wisconsin Student Assessment System is designed to measure these first three goals.

9. What is the connection between the Wisconsin Learner Outcomes and the Wisconsin Student Assessment System (WSAS)?

The Wisconsin Educational Goals Committee established the first three learner goals (see question 8) as the focus for statewide assessment. To develop assessments, these goals need to be amplified. For example, we need to know the specific knowledge, thinking, and communication processes that are important and will be assessed. We must also be clear about how the knowledge and processes are to be applied. The Wisconsin Learner Outcomes describe how students are to apply their knowledge, thinking, and communication capabilities.

The recommendations of the state superintendent's advisory committee envisions three approaches to assessment that, in combination, will include the first three learner goals. The three approaches are limited response, performance, and portfolio. The performance and portfolio assessments will be based on the outcomes coupled with academic content, while the limited-response examinations will be based solely on academic content. Limited-response and performance assessments will be given to all students at selected grade levels. Local school districts will develop and implement their own portfolio assessments that may be based on statewide guidelines.

10. How is the Third Grade Reading Test related to the goals and outcomes?

The Third Grade Reading Test will continue to be given to students annually for the foreseeable future. As a comprehensive measure, this test is most directly a measure of learner goal 2—develop thinking and communication processes. Reading comprehension is essential to accomplish all of the outcomes.

11. How do the Wisconsin Learner Outcomes fit into the School-to-Work effort?

School-to-Work is an initiative that begins when students enter school and takes on additional emphasis in grades 11 and 12. School-to-Work will make available to students in the 11th and 12th grades a variety of pathways to educational and occupational success, including college preparation, technical preparation, and youth apprenticeship opportunities. The goals and outcomes, along with academic knowledge and skills, represent what students will need to succeed on any of these pathways. A student's performance on state and district assessments as well as a review of other evaluative information, student and parent judgment, teacher comments, portfolio review—all of these may help students and parents decide on a particular pathway.

12. What is the difference between the Outcomes-Based Education (OBE) movement and the Wisconsin Learner Outcomes?

First, it should be understood that there are many definitions of outcomes-based education. In fact, each district or state that has adopted an outcomes-based education model has a somewhat different approach.

Fears arise concerning certain features of OBE programs, including a focus on attitudes and values, a retreat from traditional grading, a bias in favor of mastering learning practices, and mandatory compliance with the identified outcomes.

The Wisconsin Learner Outcomes do not focus on attitudes and values, rather they depend upon academic learning and high standards. The outcomes enhance academic content by identifying how students will need to use the knowledge and skills taught in Wisconsin schools. They focus on what students know (subject matter) and how they can demonstrate it (outcomes).

The Wisconsin Learner Outcomes do not call for a particular grading system. They are entirely consistent with either traditional or innovative grading systems, depending on what grading procedures local school districts choose to use.

The Wisconsin Learner Outcomes are inconsistent with mastery learning concepts. Mastery learning tends to isolate small bits of knowledge or skill and repeat instruction in them until they are mastered by all students. The Wisconsin Learner Outcomes serve as a bridge to connect the first three learner goals: substantial knowledge base, thinking and communication processes, and application of knowledge and processes. Wisconsin students must know, communicate what they know, and apply it. The outcomes define the ways in which students do this.

The Wisconsin Learner Outcomes are not mandated. School districts are not required to use, adopt, or adapt any or all of the outcomes. The outcomes are offered to encourage discussion at the local level of what is important for students to know and be able to do. They can be added to, deleted from, or modified to meet the needs of each district's students.

WISCONSIN'S EDUCATIONAL GOALS*

VISION

Wisconsin's public schools exist for all students so they have an equal opportunity to attain their highest level of academic achievement, growth, and development.

Public education is a fundamental responsibility of the state. The constitution vests in the state superintendent the supervision of public instruction and directs the legislature to provide for the establishment of district schools. The effective operation of the public schools is dependent upon a common understanding of what public schools should be and do. Establishing such goals is a necessary and proper complement to the state's financial contribution to education. Each school board should provide curriculum, course requirements, and instruction consistent with the goals established. Parents and guardians of pupils enrolled in the school district share with the state and school board the responsibility for pupils meeting the goals.

Educational goals are not all the same. They differ in who implements them, who or what is directly affected by them, and the immediacy of their impact on the classroom. For convenience, the following goals are divided into three major categories: Learner Goals, Institutional Support Goals, and Societal Support Goals.

LEARNER GOALS

Learner goals refer to our expectations for students. What should students know and be able to do as a result of their time in the educational system? These goals apply to the students rather than the society or the institutions within which they are educated.

Schools exist for students to learn and to reach their full potential. The first three learner goals are the basis for development of a statewide assessment system and provide the basis upon which students achieve the other learner goals.

THE LEARNER WILL:

1. Build a substantial knowledge base.

Students will build a solid knowledge base developed from challenging subject matter in computer/information technology, environmental education, fine and performing arts, foreign language, health, language arts, mathematics, physical education, reading, science, social studies, and vocational education.

2. Develop thinking and communication processes.

Students will develop a command of thinking processes (analysis, creative thinking, problem solving, decision making, visualizing, concept development) that permit them to interpret and apply the knowledge base. Communication processes (listening, speaking, reading, writing, viewing, image making, and other symbolizing) enable them to communicate thoughts with others.

3. Apply knowledge and processes.

Students will build upon knowledge and apply learning processes to create new ideas and understandings, enhance human relations, expand awareness, and enrich human experiences.

4. Acquire the capacity and motivation for lifelong learning.

Students will develop their natural curiosity to acquire habits of inquiry and a love for learning which will motivate them to continue learning throughout their lives.

5. Develop physical and emotional wellness.

Students will acquire the attitudes, knowledge, and habits to grow physically and emotionally healthy, develop self-esteem and confidence, and exhibit a healthy lifestyle.

6. Develop character.

Students will exhibit personal characteristics, such as compassion, conviction, curiosity, ethics, integrity, motivation, and responsibility.

7. Be a responsible citizen.

Students will possess and exercise the knowledge and processes necessary for full participation in the family, civic, economic, and cultural life of a complex interdependent, global society. Students will acquire an understanding of the basic workings of all levels of government, including the duties and responsibilities of citizenship. Students will make a commitment to the basic values of our government, including reverence and respect for and the history and meaning of the U.S. flag, the Declaration of Independence, the U.S. constitution and the constitution and laws of this state, and acquire a knowledge of state, national, and world history.

8. Be prepared for productive work.

Students will acquire knowledge, capabilities, and attitudes necessary to make them contributing members of a dynamic national and world economy and prepare them for the transition from school to work.

9. Respect cultural diversity and pluralism.

Students will demonstrate the knowledge and attitudes necessary to understand and respect individual and multicultural diversity and to work cooperatively with all people.

10. Develop aesthetic awareness.

Students will become aware of and be able to generate those forms of experience that have artistic and aesthetic meaning.

INSTITUTIONAL SUPPORT GOALS

Institutional support goals have to do with the learning context and environment and are the means that support the achievement of learner goals. They include such things as adequate buildings, adequately prepared teachers, reasonable teacher planning time, and appropriate materials. Many of these factors have a direct impact on the classroom and the students. Institutional support goals deal with conditions that are within the control of the school district through its school boards and administrators, assuming that society has provided the necessary resources. If a goal affects the learning environment and is attainable without action by entities outside the local school district, it is called an institutional support goal.

To accomplish these goals and provide appropriate instruction, adequate resources, time, staff development, funding, technology, and facilities must be available. A governance model that encourages local decision making might better ensure that all parties play a role in deciding the allocation of resources.

INSTITUTIONS WILL:

1. Focus on academic achievement.

The primary mission of schools will include a focus on academic results to ensure that learning occurs.

2. Set high expectations for students and schools.

School staffs, parents, and community members must set high expectations so that all students will achieve the expected educational results.

3. Address the needs of all students.

Schools will recognize the widely varying circumstances and backgrounds that children bring to school and will design strategies and alternative programs to meet the changing needs and diverse learning styles of students.

4. Establish a climate of respect.

The school atmosphere will ensure that students and staff are treated with respect and dignity so that they respect others and so that students are better able to learn.

5. Provide a wide range of educational offerings.

Schools will offer a wide range of curricular and co-curricular activities so that students will have additional opportunities to learn teamwork, cooperation, and the application of learning.

6. Provide an active learning environment.

Schools will provide an environment in which students are actively engaged in learning that connects curriculum, instruction, and assessment.

7. Provide a positive physical setting for learning.

Schools will provide safe and stimulating environments conducive to active learning.

8. Meet the needs of professional staff.

Staff will have the resources, preparation, and encouragement to perform successfully. Staff should have adequate time and financial support for professional development, collaboration in course planning, strategy development, and innovation to meet the needs of children.

9. Establish family partnerships.

Schools will create an environment that seeks the active participation of families to maximize learning.

10. Promote collaboration within the school and community.

Schools and school boards will facilitate collaboration between and among all school staff and community members and connect the curriculum and delivery of services.

SOCIETAL SUPPORT GOALS

Societal support goals, like institutional support goals, are the means that support the achievement of learner goals. If met, they ensure that students will have the necessary foundation to learn. They include such things as adequate health care, adequate nutrition, adequate funding for education, and safe, drug-free environments. These goals have significance beyond the educational community. Still, they have a crucial, if indirect, effect on children's learning. If children are not secure, properly nourished, or in good health, they will find it difficult to learn. If a goal requires action by forces outside the school district structure, it is called a societal support goal.

To accomplish these goals, society must make the commitment to invest in a quality education for all children, ensure that schools are staffed by well-prepared and caring personnel, invest its resources and leadership to ensure that children flourish, and provide support for families to provide a nurturing environment for their children.

SOCIETY WILL:

1. Make children its top priority.

Wisconsin will make the education and nurturing of all children its top priority.

2. Provide fair and adequate funding for education.

Society will act to resolve the disparities among school district financial resources needed to ensure that students, regardless of where they live, meet state educational expectations.

3. Provide safe schools, neighborhoods, and communities.

Society will promote drug- and violence-free schools and communities.

4. Ensure that children at all levels are ready to learn.

Society will provide support for parents and families to meet the ongoing nutritional, safety, physical, and emotional health needs of their children. Parents and families will instill in their children the importance of education.

5. Develop partnerships.

Society will develop partnerships between and among educators, students, parents, community, labor, business, industry, other educational institutions, and government agencies to better serve students and families.

6. Provide educational, cultural, and recreational opportunities.

Society will provide educational, cultural, and recreational opportunities that will enhance the quality of life and learning for all citizens.

7. Enhance educational equity through information technology.

Society will provide the necessary resources for schools to capitalize on information technologies such as telecommunications and computer networks to extend curriculum by using delivery systems such as distance learning.

8. Support local decision making.

The primary mission of state educational governance will be to support local districts, allow maximum flexibility for local decision making and innovation, and employ reasonable measures of accountability. The primary indicator of district effectiveness shall be academic results.